APPLICATION NO. 09/646,347 AMENDMENT DATED JANUARY 20, 2004 REPLY TO OFFICE ACTION OF JUNE 4, 2003

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listing, of claims in the application:

## LISTING OF CLAIMS:

- 1. (currently amended) Method for the removal of biological species microbiological contaminants from water comprising the steps of contacting the water with an uncoated a surface hydrated aluminum based medium which contains surface Al-OH groups for a time and under conditions such that a proportion of the biological species microbiological contaminants present in the water are absorbed onto said medium and removed from the water in a sufficient amount to make the water fit for human use or activity.
- 2. (original) Method according to claim 1 wherein the aluminum based medium is alumina (Al<sub>2</sub>O<sub>3</sub>).
- 3. (original) Method according to claim 1 or 2 wherein the surface density of Al-OH groups occurs at an average rate of greater than about 1 hydroxyl group per 10 nm<sup>2</sup> of surface area.
- 4. (currently amended) Method according to claim 3 wherein the surface density of Al-OH groups occurs at an average rate of greater than about 1 hydroxyl group per 2 nm<sup>2</sup>, preferably greater than about 1 hydroxyl group per nm<sup>2</sup>.
- 5. (original) Method according to claim 4 wherein the surface density of Al-OH groups occurs at an average rate of about 1 hydroxyl group per 0.25 nm<sup>2</sup> to about 1 hydroxyl group per 0.18 nm<sup>2</sup>.
- 6. (currently amended) A method according to claim 1 or 2 wherein the biological species microbiological contaminants is one or more selected from *Cryptosporidium*, *Giardia* or *Escheria*. *coli*.

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- 7. (currently amended) Method according to claim 6 wherein the biological species microbiological contaminants is *Cryptosporidium*.
- 8. (currently amended) Method of claim 1 or 2 wherein the alumina aluminum based medium is in particulate form.
- 9. (original) Method according to claim 8 wherein the particulate alumina has a diameter in the range of about 15 mm to about 0.05 mm.
- 10. (original) Method according to claim 9 wherein the particulate alumina has a diameter in the range of about 1.5 mm to about 0.05 mm.
- 11-26. (cancelled)
- 27. (currently amended) A method for removing protozoa from water so as to render the water suitable for human use or for use in swimming pools or spa polls, the method comprising contacting the water with an uncoated a surface hydrated alumina for a certain period of time and under conditions such that protozoa in the water are absorbed onto the alumina so as to result in a 2 log reduction in the number of protozoa present in the water, the uncoated surface hydrated alumina comprising a particle size of about 15 mm to about 0.05 mm and a surface density of Al-OH groups at an average rate of greater than about 1 hydroxyl group per 10 nm<sup>2</sup> of surface area.